

WHAT IS CLAIMED IS:

1. A press bending station for the bending of glass
5 sheets, with two bending tools which can be moved toward
one another, whereby an extensive full-face mold forms one
bending tool, while the other bending tool is designed as
an annular mold, and whereby there emerge in the molding
face of the full-face mold in an area predetermined by the
10 configuration of the annular mold a plurality of holes,
wherein at least some of the holes are arranged in at least
one groove formed in the molding face of the full-face
mold.

15 2. The press bending station of claim 1, wherein the
holes are selectively connected to a negative pressure
source.

3. The press bending station of claim 1, wherein the
20 holes are selectively connected to a positive pressure
source.

4. The press bending station of claim 1, wherein
several holes are connected together by at least one groove

formed in the molding face of the full-face mold.

5. The press bending station of claim 4, wherein the at least one groove is a peripheral annular groove that
5 connects the holes in the area of the groove.

6. The press bending station of claim 5, wherein the groove is arranged approximately 5-20 mm from the outer edge of the glass sheet and disposed on the face of the
10 full-face mold.

7. The press bending station of claim 6, wherein several grooves are provided that are not connected together.
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8. The press bending station of claim 7, wherein the depth and width of the grooves are both in the range of 4-6 mm respectively.

20 9. The press bending station of claim 8, wherein additional flow channels and through-holes are provided in the molding face of the full-face mold inside the area enclosed by the holes.

10. The press bending station of claim 9, wherein the bending tools are each covered by at least one air-permeable cloth.

5 11. The press bending station of claim 10, wherein the permeable cloth is chosen from a group of materials including stainless steel, fiber glass, poly para-phenyleneterephthalamide fibers, polybenzoxazole, graphite fibers, or blended weaves thereof.

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12. The press bending station of claim 10, wherein the molding face of the full-face mold is covered by two or more cloths lying one upon the other, whereby the cloth facing the glass sheet has a finer structure than the cloth
15 lying next to the molding face of the full-face mold.

13. The press bending station of claim 10, wherein the molding face of the full-face mold is covered by only one cloth.

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14. The press bending station of claim 13, wherein the structure and the thickness of the cloth facing the glass sheet is adapted to the size of any impurity particles.

15. The press bending station of claim 14, wherein the full-face mold is chosen from the group consisting of ceramic, aluminum, stainless steel, compositions that
5 include fused silicas, or combinations thereof.

16. The press bending station of claim 10, wherein the bending tools can be heated electrically, with hot oil, air, or other fluids.
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17. A mold having a major surface with at least one groove thereon, at least one hole defined therein, the hole being disposed in fluid communication with the groove and selectively connected to a negative pressure source for
15 holding material to the surface.

18. The mold of claim 17, wherein the hole is connected to a positive pressure source for releasing the material from the surface.
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19. A press bending station having two opposing molds,

the first mold having a major surface with at least one groove thereon, at least one hole defined

therein, the hole being disposed in fluid
communication with the groove and selectively
connected to a negative pressure source for holding
material to the surface, thus allowing the material to
5 be shaped into a part when the molds are urged
together.

20. The mold of claim 18, wherein the hole is
selectively connected to a positive pressure source for
10 releasing the material from the surface.